



Regulation Changes for the 2016-2017 Deer Season under Consideration

Summary of Changes under Consideration:

- **Firearms Season Changes**
 - *Maintain the current timing of the November portion and reduce the length to 9-days*
 - *Expand the late youth portion to 3-days beginning the first Friday after Thanksgiving*
 - *Reduce the length of the antlerless portion to 3-days and begin on the first Friday in December*
 - *Eliminate the urban zones portion*
- **Archery Season Changes**
 - *Allow crossbows as a legal method during the archery deer and turkey season*
 - *Reduce the limit of antlered deer during the archery season to 1*
- **Conservation Area Regulations**
 - *Simplify conservation area regulations by limiting methods and use of firearms and archery antlerless permits*

MDC General Philosophy on Hunting Regulations and Season Structure

MDC's role and responsibility regarding hunting, fishing, and hunter / angler participation—**when consistent with biological considerations**—is to:

- Provide maximum opportunity and access;
- Minimize barriers;
- Use hunting to achieve wildlife management objectives;
- Support the economic benefits that result from hunting and fishing;
- Ensure that hunting and fishing remain viable mainstream activities for Missourians;
- Promote an understanding of our hunting and fishing heritage and traditions.

Background

Throughout the development of the White-tailed Deer Management Plan, we have clearly outlined that our current priority for deer management in Missouri is to have a hunting season structure that achieves the Department's deer population goals while promoting hunter participation, recruitment, and retention.

Currently, the Department uses hunter surveys, production landowner surveys, archer observation surveys, deer population simulations, biological data, harvest summaries, and public comments when determining deer population goals for a particular management unit or county.

We gathered public input on Missouri's White-tailed Deer Management Plan and proposed regulations changes using quantitative scientific surveys of deer hunters, and open houses conducted around the state to gather public comment, along with a designated webpage to collect comments. Scientific surveys are a means of obtaining levels of support or opposition that Missouri deer hunters have toward a proposed regulation change. Alternately, the open houses and web comments provided the public an opportunity to give us feedback on what they view as important issues and how they would like to see the department address those issues. The public comments provided to the department on various deer management issues were considered in the development of these regulations recommendations as feedback provides context to the opinions expressed in scientific surveys.

The current Missouri deer season structure was built during an era with a rapidly growing deer population, coupled with a concern that hunters would not be able, nor willing, to harvest enough does to stabilize or decrease deer numbers in much of rural Missouri. That paradigm has shifted as deer populations in much of Missouri are either at or below desired levels. Therefore, in order to meet the deer management challenges of today, we must devise a new approach to deer management and reconsider the structure of the Missouri deer season. The goal is to adjust regulations in a manner that produces the desired population change (i.e., increase, stabilize, or decrease) and attempts to maximize hunter recruitment and retention. The regulations changes we are considering are to accomplish our goal modifying the current hunting season structure to achieve the Department's deer population goals while promoting hunter participation, recruitment, and retention.

Regulation Changes under Consideration

Firearms Season Changes

November Portion:

The timing of the November portion of the firearms deer season during the peak of the rut was established when the deer population was below desired levels and the goal was to increase deer numbers by minimizing doe harvest and maximizing participation by encouraging buck harvest. Consequently, setting the November portion to coincide with the rut was a good deer management strategy in the early years of deer management. Deer activity is highest at that time so deer, especially bucks, are vulnerable to hunting. This was appropriate because we were most interested in protecting antlerless deer and taking a high proportion of antlered bucks was acceptable. Additionally, when the November portion was established, many hunters were restricted to taking only antlered deer and were not selective, shooting the first legal deer they encountered. Hunters were satisfied because hunting during the peak of the rut increased their chances of taking a deer.

A growing deer population throughout the 1980's and 1990's produced many modifications of deer management objectives, shifting from a buck harvest emphasis to a doe harvest emphasis. In addition, deer hunter interests have changed. Hunters are becoming increasingly selective and increasingly supportive of managing for a greater proportion of bucks in older age-classes. Furthermore, the current November portion timing results in the removal of bucks during the peak of the breeding period, which is disruptive to the establishment of dominance hierarchies, and, biologically, is not the ideal time to apply heavy buck harvest. These dominance hierarchies ensure that the most fit, but not necessarily largest, bucks do a disproportionate amount of the breeding. For example, the current timing means that only approximately 40% of the breeding occurs prior to the November portion. A one-week later shift would mean that approximately 75% of the does would breed prior to opening of this portion of the deer season. A later season would maintain the dominance hierarchies so that more fit bucks have greater of a chance of breeding.

A 2013 survey of Missouri deer hunters indicated a high level of opposition to moving the November portion of the firearms season outside of the rut, and more opposition than support for moving the November portion one week later. Generally, these results indicate that Missouri deer hunters value the opportunity to hunt deer during the rut when activity is greatest and do not desire a change in the timing of the November portion. For the reasons listed above, the current timing of the November portion of the firearms deer season is not biologically the ideal time. However, it is hard to dispute the positive social impacts of providing quality hunting opportunities to the greatest number of hunters during the period of peak deer activity. Thus, we do not recommend changing the opening date of the November portion of the firearms deer season at this time. Nevertheless, as attitudes and hunter desires shift, future consideration of a change in timing of the November portion is appropriate.

Additionally, in 1994 the November portion of the firearms deer season was expanded from 9 days to 11 days in response to a growing deer population. Over the last two decades, deer hunter numbers and deer harvest opportunities (i.e., permits, open hunting days) have increased substantially. Over the same time period the deer population has stabilized or been reduced in many parts of Missouri. Therefore, we are considering reducing the length of the firearms deer season by two days to ensure that deer population goals continue to be met. Reducing the length of the November firearms deer season will only minimally reduce opportunity and harvest because the final two days of the November portion of the firearms deer season have traditionally been the two days with the lowest hunter harvest (Figure 1) and number of hunting trips (Figure 2).

Change under Consideration: Maintain the current timing of the November Portion of the Firearms Deer Season and shorten to 9-day.

Youth Portions:

In 2001, the Department initiated the first youth firearms portion of the deer season to get young hunters in the woods when the chance of success is optimal, and to engage them in hunting and the outdoors at an early age. In 2009, youth firearms hunting opportunities were expanded to include a late youth portion which was timed to follow all other portions of the firearms deer season. The addition of the youth portions and other youth recruitment efforts has been successful at increasing young hunter participation. However, it is not clear that these efforts are successfully retaining young hunters. Therefore, we continue to explore opportunities to provide quality hunting opportunities, like those provided during the early youth portion. Quality hunting opportunities are critical to success and satisfaction with the hunting experience. The current timing of the late youth portion has much lower success and participation than the early youth portion (Figures 1 and 2). Therefore, we recommend moving the late youth portion of the firearms deer season from the current timing of late December or early January to the Friday through Sunday following Thanksgiving. Altering the timing should increase success and participation as a result of better deer activity and weather conditions in late November when compared to the current timing of the late youth portion. Additionally, it expands youth hunting opportunities to include an additional day in which schools will be closed.

Change under Consideration: Expand the late youth portion to 3-days beginning the first Friday after Thanksgiving

Antlerless Portion:

The antlerless portion of the firearms deer season was implemented in 1996 to increase the harvest of antlerless deer in response to a rapidly growing deer population in portions of the state. However, because participation was much lower than during the November portion of the firearms season, the antlerless portion has not resulted in a significant overall increase in antlerless harvest (Figures 1 and 2). Much of the harvest occurring during the antlerless portion is likely the result of shifting antlerless harvest out of the November portion. For example, in 2013, the antlerless portion only made up 6% of the total firearms deer harvest and 7% of the total antlerless deer harvest.

The deer population in most of Missouri is currently at or below the population goal. Thus, the additional antlerless harvest opportunities provided by the antlerless portion are no longer necessary to meet population goals. Also, increasing the number of deer hunting days with the creation of youth portions, expansion of November, antlerless, and alternative methods portions has created conflicts between deer hunters and other outdoors users like small game hunters. Removing or reducing the length of the antlerless portion of the deer season may result in some lost deer hunting opportunities, but it would reduce conflicts that occur between other hunters and outdoor users due to the length of the current deer hunting seasons. Therefore, we recommend reducing the length of the antlerless portion.

Change under Consideration: Reduce the length of the antlerless portion to 3-days and begin on the first Friday in December.

Urban Zones Portion:

The goal of the Department's urban deer management program is to provide individuals and communities with information about deer management and to assist, as requested, in the management of white-tailed deer by providing management expertise, deer management plans, and population control options that provide residents and communities with effective ways to manage deer.

The Department has taken a progressive and proactive approach to urban and suburban deer management by adding tools to the toolbox to help urban and suburban communities meet their deer management objectives.

The urban zones portion of the firearms deer season was implemented as one tool to address issues associated with overabundant urban deer populations. Department staff working closely with local communities to implement management strategies have led to ordinance changes allowing the use of archery equipment and controlled hunts in cities across the state, both of which have proven to be far more effective at managing urban deer populations than the implementation of the urban zones portion of the firearms deer season. The allowance of an additional firearms hunting opportunity in urban zones does little to manage deer populations where the ability to use firearms is limited due to city ordinances or safety concerns. As a result, the majority of harvest during the urban zones portion occurs in the most rural portions and does not ensure adequate deer harvest in the locations where urban deer conflicts occur. Therefore, we are considering eliminating the urban zones portion of the firearms deer season. Removal of the urban zones portion will simplify the deer season structure and will not jeopardize the progress towards effective urban deer management that has occurred in many communities across the state.

Change under Consideration: Eliminate the urban zones portion of the firearms deer season

Archery Season Changes

Archery Methods:

The archery deer season has been growing in popularity over the past several years. Additionally, archery hunting is a critical deer management tool in many urban areas where the discharge of firearms is restricted. With the increasing popularity of the archery season, we have received an increasing number of requests to expand the season to include crossbows, which are currently only allowed with a Hunting Method Exemption.

Currently more than 10,000 Hunting Method Exemptions are in effect to allow persons with disabilities to use a crossbow during the archery deer season. A 2008 report on archery deer hunters found that similar to other types of hunting activity, many hunters begin at an early age, then decline in participation during the late teen and college years, followed by a return in the mid-to-late twenties with somewhat stable participation until around the age of 40. Once hunters enter their 40's, archery participation diverges from firearms deer hunter participation. It appears this is the age when Missouri archery hunters begin to "drop out" of archery hunting. If, as suspected, physical limitations further the decline in participation of middle-aged archery hunters, allowing the use of crossbows would prolong participation for several years for those that still retain a desire to hunt.

Support and request for allowance of crossbows during the archery season have increase significantly over the last several years. A 2012 survey of 18,000 Missouri deer hunters indicated that 46% approve and 33% disapprove of allowing crossbows during the archery season. Therefore, the many Missourians who have individually requested additional crossbow hunting opportunity would no doubt welcome the allowance of crossbows during the archery deer season.

Our challenge is to balance contrasting hunter opinions with the desire to provide maximum hunting opportunity while also responsibly managing Missouri's deer population. In an effort to maximize hunting opportunities, recruit younger hunters and retain older hunters, we are considering expanding the archery season to include crossbows.

Change under Consideration: Allow the use of crossbows by all hunters during the Archery Deer Season

Archery Antlered Deer Limit:

As population management goals shift toward encouraging antlerless harvest and hunters' desire to see more bucks in older age-classes, wildlife biologist have begun to consider the restrictions on buck harvest as a tool to manage the sex ratio and age structure of the deer population. For example, the antler-point restriction was implemented to shift harvest pressure from bucks to does and improve age structure of the buck segment of the

populations. The point restriction has reduced the harvest of bucks 1½ years old, but has not greatly reduced total buck harvest. Therefore, one option to consider is reducing the total number of bucks an individual could harvest to reduce pressure on the buck segment of the population. This is particularly important as we explore ways to ensure appropriate antlerless harvest and meet hunter desires for more bucks in older age classes, particularly in areas where the antler point restriction is not biologically or socially appropriate.

The allowance of two bucks during the archery season was established at a time when there were relatively few archers and archery harvest made up a relatively small proportion of the total harvest and deer populations were rapidly expanding. Each year archery harvest makes up a larger proportion of the total antlered buck and overall deer harvest. For example, in 2000 archery deer harvest made up 10% of the total deer harvest and 11% of the antlered buck harvest, by 2013 those numbers had increased to 20% and 19%, respectively.

A recent survey of deer hunters indicates very low support for a limit of one buck all methods (archery and firearms) combined. However, public input indicates that many hunters would be accepting of a one archery antler deer and one firearms antlered deer limit. Therefore, we are considering reducing the number of antlered deer that may be taken during the Archery Deer Season to one.

Change under Consideration: Reduce the limit of antlered bucks taken during the Archery Deer Season to one.

Conservation Area Deer Regulations

Deer management on Missouri's public areas has had a diverse history ranging from refuges that served as a source of deer during the state's deer herd restoration in 1940's-60's to the current offering of diverse hunting opportunities. Diverse hunting regulations on conservation areas have been established to fulfill the desires of hunters with different harvest and hunting method interests.

In 2005, the Department applied six deer hunting regulations on conservation areas and monitored how they affected deer numbers and hunter attitudes. During 2005, 2006, 2011, and 2012, hunters on select conservation areas were randomly interviewed and received follow-up surveys to determine their perceptions of the deer population, hunting experiences, and overall satisfaction with different hunting regulations.

The study found that for most hunters, the opportunity to see and harvest a deer is important, affecting how hunters select an area to hunt, and their satisfaction with the hunting experience. The results suggest that conservation areas with restrictive regulations (archery only, archery/muzzleloader methods, and bucks only) increase opportunities to see deer and produce more satisfied hunters than areas with more liberal regulations (statewide, open during antlerless portion) . However, for some hunters the opportunity to hunt deer and use whatever permits are available in the county is most important.

Generally, deer hunters on public land have lower success rates, perceive lower deer numbers, and tend to rate their hunting experiences lower than private land hunters. We continue to strive to manage deer numbers at desirable levels while providing diverse deer hunting opportunities for the public. The current set of deer regulations hunting options on Conservation Areas are confusing, do not allow managers to adapt regulations to changing deer populations, and in general there is low hunter satisfaction. Therefore, to increase hunter satisfaction and effectiveness of area regulations, we are considering changes that would simplify regulations and give managers the ability to adjust regulations to adapt to current deer population conditions.

Change under Consideration: Simplify Conservation Area regulations to include Archery Methods Only, Archery and Muzzleloader Methods Only, or Archery and Firearms Methods Only with optional allowance of Archery and Firearms Antlerless Permits.

Daily Harvest During Firearms Deer Season

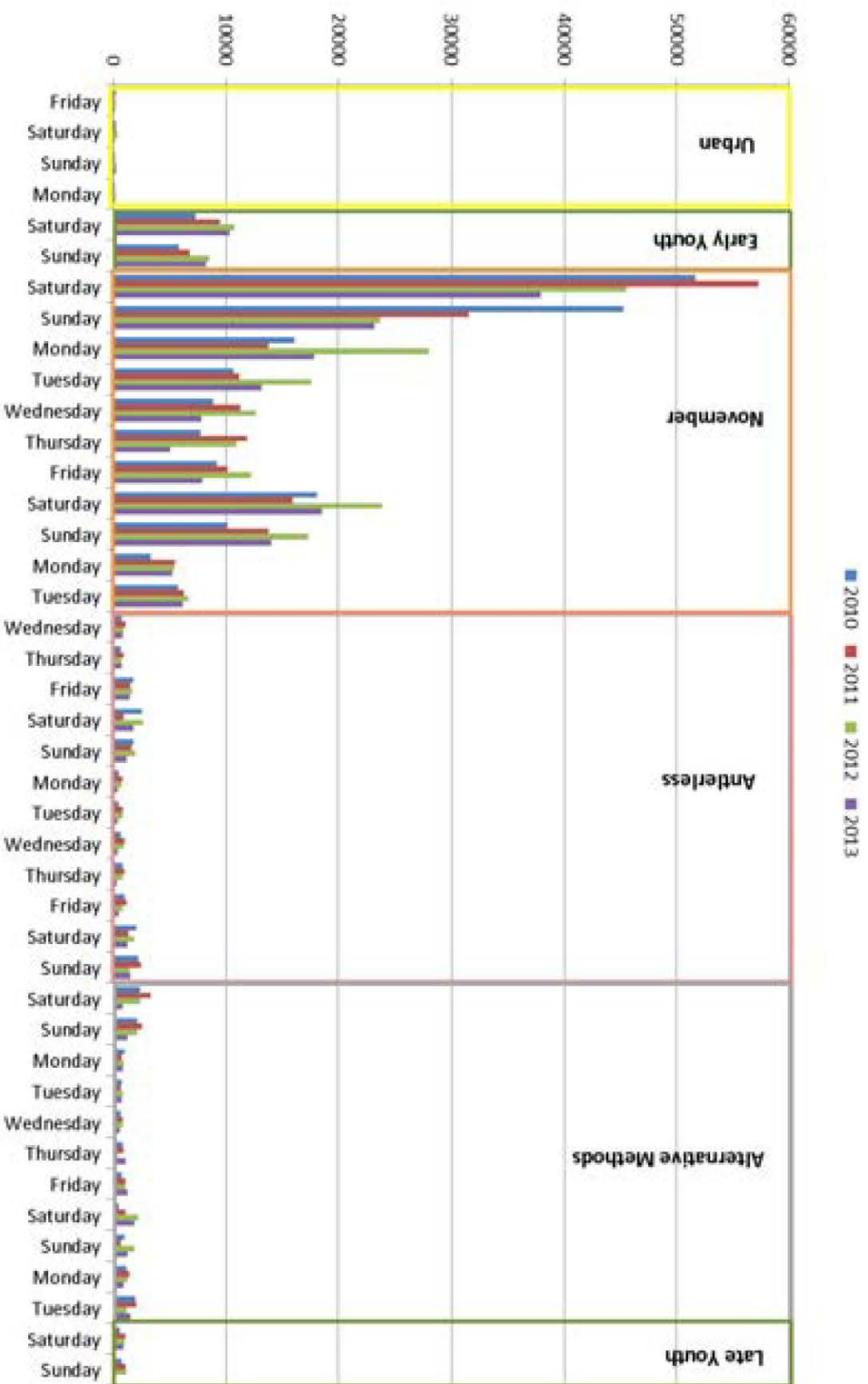


Figure 1. Daily harvest totals during the urban zones, early youth, November, antlerless, alternative methods, and late youth portions of the firearms deer season from 2010 through 2013.

Hunter Trips During the Firearms Deer Season

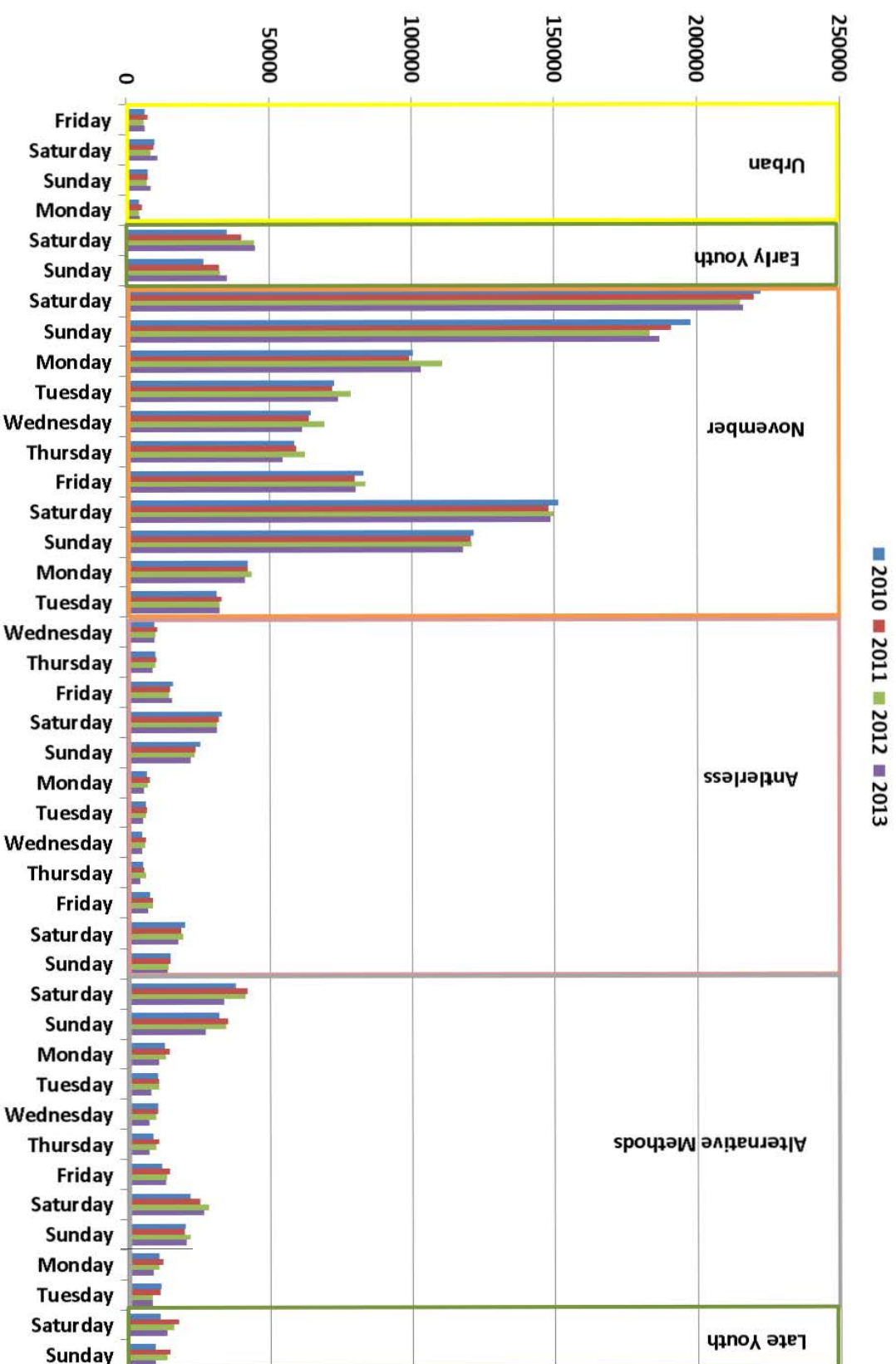


Figure 2. Estimated daily hunting trips during the urban zones, early youth, November, antlerless, alternative methods, and late youth portions of the firearms deer season from 2010 through 2013.